

REMARKS / ARGUMENTS

I. General Remarks

Claims 1-12, 7-12, 15-19, and 21 are pending. Claim 8 is currently amended to clarify the antecedent basis of “subterranean formation.” Claims 22 and 23 have been added.

II. Remarks Regarding the 35 U.S.C. § 103(a) Rejection

Claims 1-5, 7-12, 15-19, and 21 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 3,765,488 issued to Pence *et al.* [hereinafter *Pence*] in view of U.S. Patent No. 5,271,466 issued to Harms et al. [hereinafter *Harms*]. Applicants respectfully traverse. Applicants respectfully submit that (1) no motivation exists to combine the cited references and (2) *Harms* expressly teaches away from the proposed combination of the cited references.

A. A Person of Ordinary Skill Would Not Have Been Motivated to Combine *Harms* and *Pence*

In the advisory action, mailed July 11, 2005, Examiner writes as follows:

The request for reconsideration has been considered but does NOT place the application in condition for allowance because: Referring to the applicants' arguments about motivation to combine the references, the Harms '466 reference teaches adding a second fluid to a first gelled fluid enhances proppant placement and fluid cleanup. *See Harms*, col. 4, lines 50-54.

See Advisory Action, mailed July 11, 2005 at 2. Applicants recognize that the first crosslinked fluid of *Harms* enhances the cleanup of the second crosslinked fluid in that the CO₂ contained in the first crosslinked fluid breaks the crosslinking of the second crosslinked fluid. In doing so, the clean-up of the second fluid is enhanced, because once the viscosity of the second fluid is dramatically reduced, the recovery of the second fluid is improved thus leaving behind little or no residue of the second crosslinked fluid.

The first fluid of *Harms*, however, is crosslinked, and as no method of breaking the first fluid of *Harms* is taught, the problem remains in *Harms* of poor clean-up of the first fluid. Because the first fluid of *Harms* is crosslinked, the higher viscosity of this fluid results in a poor cleanup of the first fluid and a greater amount of residue is left behind in the formation than a non-crosslinked fluid. Thus, although the first crosslinked fluid of *Harms* aids in the cleanup of the second fluid, the problem remains in *Harms* of poor cleanup of the first crosslinked fluid.

The first fluid of the present invention, on the other hand, is not a crosslinked fluid and is thus a thinner fluid (*i.e.* lower viscosity) than a conventional crosslinked fluid. Accordingly, the first fluid of the present invention leaves behind less residue than the first crosslinked fluid of *Harms*. Even if *Harms* had broken the first crosslinked fluid by using an oxidative breaker (although this teaching is nowhere disclosed in *Harms*), such a step would be disadvantageous over the present invention in that the first fluid of the present invention requires no such breaker as it is already of a comparably lower viscosity. Such an additional step in *Harms* would be disadvantageous as compared to the present invention from the standpoint of both the additional time and cost involved in such a step.

Thus, the passage above cited by the Examiner does not address the use of a non-crosslinked fluid for the first fluid of *Harms*. The clean-up and enhanced proppant placement cited above by the Examiner does not refer to the enhanced cleanup of the first fluid of *Harms*. Instead, the passage above refers to the second fluid being an enhanced proppant carrier because of it being crosslinked and further, it refers to the enhanced clean-up of the second crosslinked fluid and not the first crosslinked fluid of *Harms*. In other words, the first crosslinked fluid in *Harms* effects an enhanced cleanup of the second crosslinked fluid by the action of the first crosslinked fluid breaking the crosslinking of the second crosslinked fluid. Thus, the passage above does not address the substitution or a motivation for substituting the first crosslinked fluid of *Harms* with another noncrosslinked fluid.

Further, the first fluid of the present invention causes less formation damage than the first crosslinked fluid of *Harms*. Generally, crosslinked fluids will result in wider fractures than a noncrosslinked fluid (*i.e.*, like the first fluid of present invention). The lower viscosity first fluid of the present invention generally result in shorter and narrower fractures than a comparable crosslinked fluid. By using a lower viscosity fluid in the present invention, formation damage may be reduced as compared to using a crosslinked fluid as the first fracturing fluid.

For at least these reasons, Applicants respectfully submit that *Harms* and *Pence* are an inappropriate combination of references as a person of ordinary skill in the art would not have been motivated to combine the two references based upon a motivation to combine found in the references themselves. Accordingly, Applicants respectfully request removal of the 35

U.S.C. § 103 obviousness rejection as to independent claims 1, 8, and 15, and the claims dependent thereon, claims 2-5, 7, 9-12, 16-19, and 21.

B. No Motivation to Combine the Cited References Has Been Shown by the Examiner

Applicants respectfully submit that *Harms* and *Pence*, fail to form a proper basis for a *prima facie* case of obviousness. A *prima facie* case of obviousness requires a suggestion or motivation in the prior art references to make the specific combination of elements claimed by Applicants. M.P.E.P. § 2143.01 (citing *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obvious was held improper.); *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308 (Fed. Cir. 1999) (The level of skill in the art cannot be relied upon to provide the suggestion to combine references.)). Additionally, Applicants respectfully add that in determining obviousness, the Federal Circuit has held that “The mere fact references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” *See* M.P.E.P. § 2143.01, citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Further, in *In re Kotzab*, the Federal Circuit specifically explained that to make a *prima facie* case, the Examiner must do more than merely identify each individual claim element in the prior art as follows:

[I]dentification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference. (citations omitted).

See 217 F.3d 1365, 1370. The cited prior art references themselves contain no such motivation or suggestion to combine the elements of *Harms* and *Pence* to arrive at the specific combination of elements claimed by Applicants.

In the Final Office Action, Examiner wrote, in part, as follows:

As it would be advantage to enhance the proppant placement and fluid clean up and minimize formation damage it would be obvious to one of ordinary skill in the art to modify the method disclosed by *Pence* to add a second fluid as taught by *Harms*.

See Final Office Action at 4. Applicants reemphasize that as provided in M.P.E.P. § 2144.03(C), a conclusion as to the supposed action of a person of ordinary skill in the art is insufficient to establish a *prima facie* case of obviousness. To the extent that Examiner relies on such a statement to supply the necessary motivation to combine or modify the prior art references, Applicants hereby respectfully traverse the lack of such a showing and requests under M.P.E.P. § 2144.03(C) that the Examiner supply an affidavit or other documentary proof establishing the prior art knowledge that would have motivated a person of ordinary skill in the art to make the specific combination of elements in Applicants' invention.

For at least these reasons, Applicants respectfully submit that *Harms* and *Pence* are an inappropriate combination of references as a person of ordinary skill in the art would not have been motivated to combine the two references based upon a motivation to combine found in the references themselves. Accordingly, Applicants respectfully request removal of the 35 U.S.C. § 103 obviousness rejection as to independent claims 1, 8, and 15, and the claims dependent thereon, claims 2-5, 7, 9-12, 16-19, and 21.

C. Harms Teaches Away from the Proposed Combination of References

Harms expressly teaches away from the proposed combination. *Harms* repeatedly teaches throughout his disclosure that the first fluid should be a crosslinked fluid. *See e.g.*, *Harms*, Abstract, Summary of Invention (col. 2, lines 11-13.), and Description of Preferred Embodiments (col. 2, lines 50-52). Indeed, throughout the disclosure of *Harms*, the CO₂-carrying first fluid is consistently characterized as a crosslinked fluid. *Harms* does not teach that other fluids besides crosslinked fluids may be substituted in lieu of the first crosslinked gel. Thus, by teaching repeatedly throughout its disclosure that the first fluid is a crosslinked fluid, *Harms* teaches away from the idea that a suitable first fluid could be a fluid other than a crosslinked fluid.

It is improper to combine references where the references teach away from their combination. M.P.E.P. § 2145(X)(D)(2) (citing *In re Grasselli*, 713 F.2d 731, 743 (Fed. Cir. 1983)). Thus, for at least this reason, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection as to independent claims 1, 8, and 15, and correspondingly, dependent claims 2-5, 7, 9-12, 16-19, and 21, which depend, either directly or indirectly, from independent claims 1, 8, and 15.

SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that no additional fees are due in association with the filing of this Response. However, should the Commissioner deem that any additional fees are due, including any fees for extensions of time, the Commissioner is authorized to debit the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300, for any underpayment of fees that may be due in association with this filing.

Respectfully submitted,



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Date: 8/12/2005